

WELCOME TO OUR
NEWSLETTER
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IN TOUCH

City of Raleigh Biosolids



Volume 6, Issue 1

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Special points of interest:

- Welcome New Public Utilities Director
- Variance Granted by EMC
- Going Green with the Biosolids Newsletters
- Annual Stakeholders meeting to be held in Fall of 2010

Inside this issue:

2010 Biosolids Production and Distribution Charts	2
Annual Biosolids Program Summary	3
New Contact information	4



Welcome New Public Utilities Director

John Robert Carman started on January 4 as the new director of the City of Raleigh's Public Utilities Department.

While he has spent the past four years with global engineering firm CH2M Hill, in Utah, northern California and currently as a vice president based in Chicago, the majority of Mr. Carman's 30-year career in water and sewer operations and management has been in the public sector.

He served as general manager of the Metropolitan Water District of Salt Lake & Sandy in his native Utah from 2002 to 2005. In this position Mr. Carman was responsible for all functions of the system that serves an estimated population of 750,000. This included management of the system's \$250 million capital improvement plan and a stint as president of the board for the Provo River Water Users Association. In 2006 Mr. Carman was appointed to the Utah Board of Water Resources by the Utah

governor.

The seven previous years, Mr. Carman, 49, was the water quality and operations manager for Salt Lake City's Metropolitan Water District. He has learned the water treatment business from the pump up, starting in 1979 as a pump station and pre-treatment operator for the Salt Lake City Water Reclamation Facility. He received prompt promotions, first to treatment plant operators for City Creek Water Treatment Plant and then to operator for Salt Lake City's Big Cottonwood Water Treatment Plant.

He received his bachelor's and master's degrees in civil and environmental engineering from the University of Utah at Salt Lake City. He is a registered Professional Engineer in Utah.

The City of Raleigh Public Utilities Department provides the treatment and distribution of the city's drinking water supply, as well as the collection and treatment of

wastewater in Raleigh, Garner, Rolesville, Wake Forest, Knightdale, Wendell and Zebulon. Raleigh sells water, wastewater treatment or both services to several municipalities including Apex, Fuquay-Varina, Middlesex, Clayton and Johnston County. The department's annual budget (currently more than \$143 million) for all operations is a self-supporting enterprise, fully funded by revenues received from the users of the water and wastewater services. The department's capital improvement program totals more than \$927 million for the coming 10 years.



Variance Granted!

The North Carolina Environmental Management Commission (EMC) granted the City of Raleigh a variance from state prescriptive regulations regarding groundwater quality standard exceedance for nitrate nitrogen levels contamination near the City's Neuse River Wastewater Treatment Plant (NRWWTP). The EMC voted unanimously on Nov. 19 to approve the variance request from the City as part of

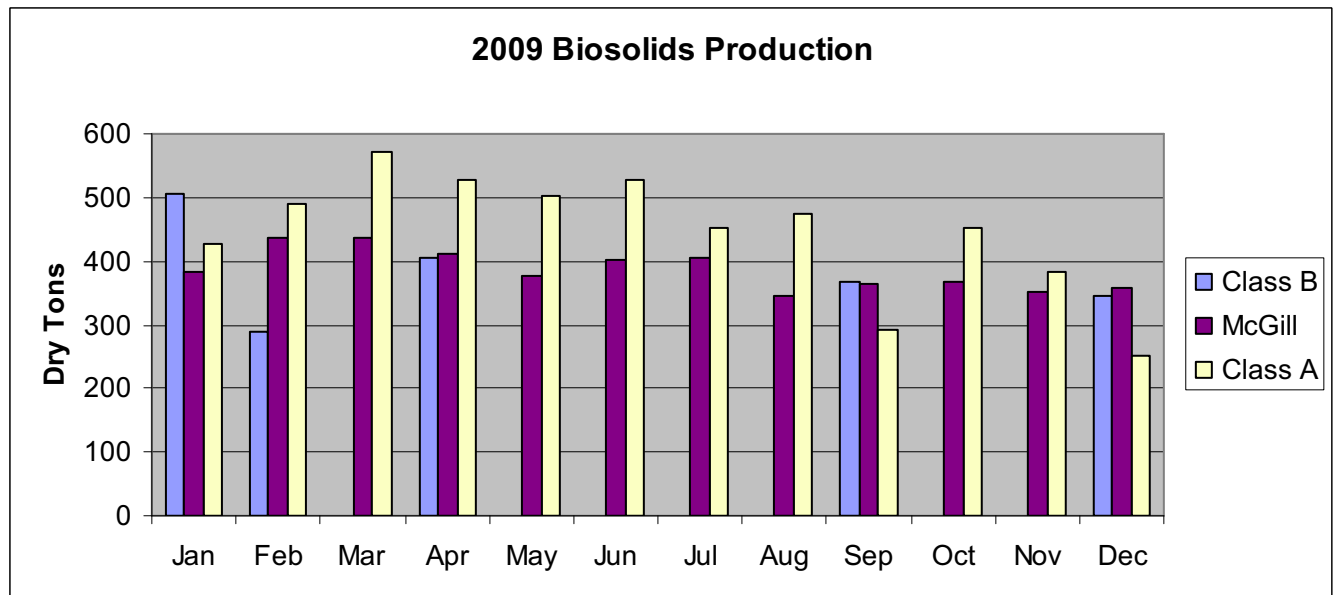
the City's state approved Corrective Action Plan (CAP) for this site.

The City's CAP was conditionally approved by the state in 2006. One major component of the CAP was for the City to implement active groundwater remediation on part of the City's property and to request a variance from the EMC since the City proposed to use "natural

attenuation" for remediation of the remainder of the City fields where groundwater levels for nitrate nitrogen exceeded the standard.

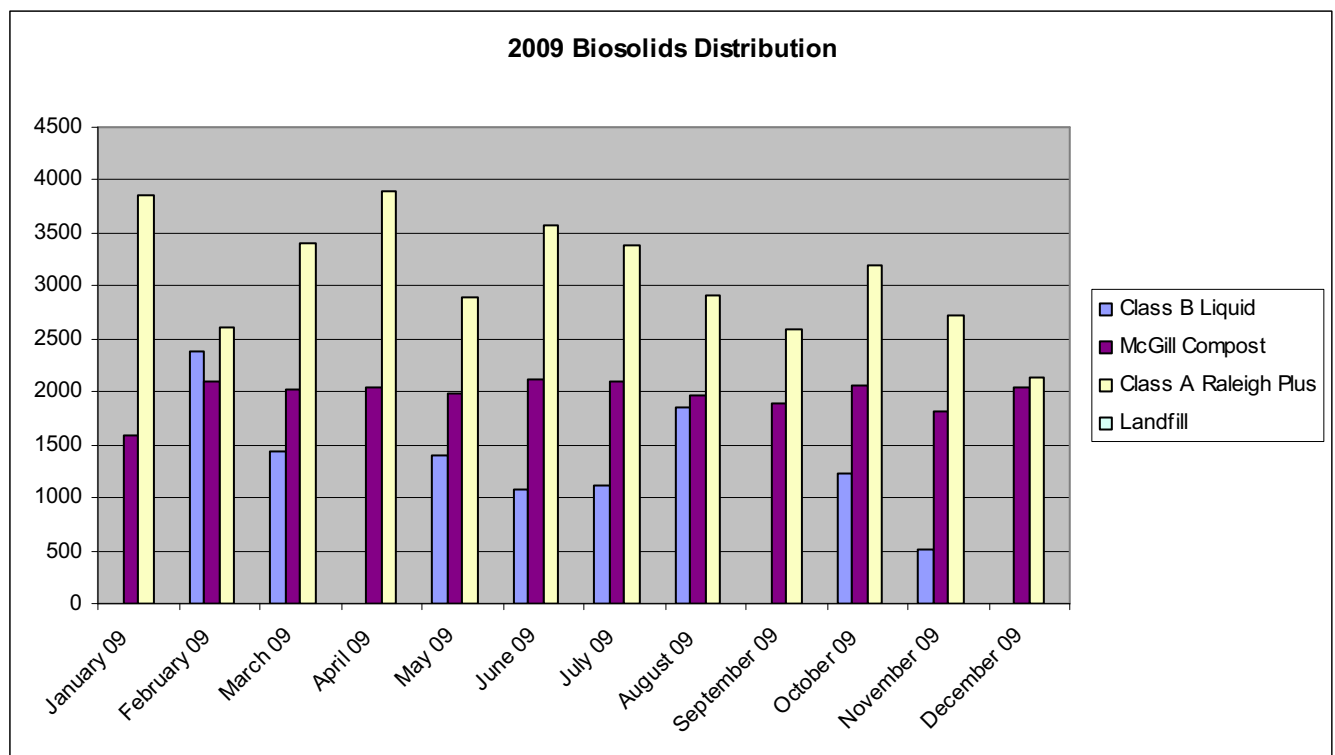
The EMC's approval of the variance paves the way for the City to now complete implementation of the remainder of the a Corrective Action Plan components.

2009 Biosolids Production & Distribution



The chart above demonstrates the amount of biosolids produced by the NRWWT for calendar year 2009. The majority of the product produced is a Class A fertilizer product, which is the highest quality of biosolids that can be produced.

The chart below demonstrates the amount of biosolids distributed from the NRWWT for calendar year 2009. All the biosolids produced at the NRWWT are beneficially reused and distributed, leaving no significant storage of biosolids on-site. Also, no biosolids products were sent to the landfill.



Annual Program Summary

The biosolids program at the NRWWTP is continuing to improve through the use of an EMS approach to managing the program. Some of the highlights of this year's program include:

Regulatory Compliance: The NRWWTP biosolids management program received one regulatory non-compliance in 2009 for early application of biosolids on privately owned land. This non-compliance did not result in a Notice of Violation (NOV) from the state. The NRWWTP received the Platinum Award from the National Association Clean Water Agencies (NACWA) for six consecutive years without a permit violation.

Environmental Performance: 100% of the biosolids produced at the NRWWTP were beneficially reused with no biosolids products sent to the landfill. Demand for biosolids products continues to be greater than production. In 2009, the City received LEED silver certification for the new training facility at the NRWWTP, the first LEED silver certified facility for the City of Raleigh.

Quality Management Practices: All Class A products produced were consistently below 25% of the ceiling concentrations for exceptional quality biosolids per the federal 503 regulations for biosolids. Production of various biosolids products continues to be in line with customer demand projections. This helps alleviate the need for on-site storage of biosolids product. Due to budget constraints, funding for some of the projects in current Capital Improvement Programs (CIP) budget have been delayed.

Relations with Interested Parties: Stakeholders continue to categorize the NRWWTP as a "good neighbor". Attendance was very low at the annual stakeholders meeting held in August of 2009 but the meeting was quite productive and informative. The annual stakeholders meeting, the periodic newsletters and the City's website continue to keep stakeholders and interested parties informed about program happenings. Stakeholders were appreciative of the efforts by staff to keep them informed and up-to-date on current happenings around the plant.

Continual Improvement: The Corrective and Preventive Action (CAPA) process continues to be a vital tool for identifying and fixing weaknesses in the system as well as identifying opportunities for improvement to the system. Staff are experimenting with growing and expanding different crops for potential use in the biodiesel industry. The third phase of the on-site irrigation system is underway and scheduled for completion in 2011. This will bring the total number of irrigated acres to 340. The irrigation system uses reuse water which reduces the dependence on potable water and reduces the amount of nitrogen released back into the river.

Contractor Performance: There were zero regulatory violations for the contractors working in our biosolids management system. Contractors continue to follow the policies and procedures outlined in their service agreements as they relate to our biosolids EMS at NRWWTP.

Goals and Objectives: In 2009 there were four voluntary goals set for the biosolids management system, each containing several sub-goals or targets. 55% of those goals were achieved. Accomplishments include: produced 100% non-restricted, exceptional quality Class A product, established an energy benchmark to set future goals for energy reduction, reduced loader fuel consumption by greater than 10%, established baseline for Salmonella testing on biosolids and increased the number of on-site training opportunities by more than 10%. However, the goal of beginning land application on 50% of the NRWWTP fields by June 2009 was not met. While the variance for the natural attenuation of the groundwater was received, the variance for the land application to begin applying biosolids to the plant site by was not. This goal will be continued in the next year. The goals of increasing staff resources in the EMS program in FY 2010 or the installation of electronic billboards were not met due to budget constraints. Budget constraints also moved out funding for the Biosolids Master Plan but the goal of finalizing and receiving the Biosolids Master Plan was met. Attendance at the annual stakeholder meeting did not improve by 10% in 2009 over that of 2008 but rather held steady at the 2008 level. The goal of researching different admixtures for the Raleigh Plus Class A product was met, however, it was determined that changing from the current admixture was not economically feasible nor did it produce a better product for the end-users. Therefore the decision was made to stay with the admixtures currently in place.



Watch for information on the upcoming annual stakeholders meeting scheduled for the fall of 2010. Details will be forthcoming in future editions of the newsletter.

If you would like to be "green" and save a few trees by receiving this newsletter and other program information electronically, please forward your email address to Marti.Gibson@raleighnc.gov. We will compile a distribution list of stakeholders and will be more than happy to email you future newsletters and upcoming stakeholder meeting information.

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NRWWTP Staff and Contacts

Two divisions (Wastewater Treatment and Reuse) are based at the NRWWTP and both work closely to achieve common goals.

The wastewater Treatment Division is composed of five programs: Administration, Laboratory, Plant Operations, Plant Maintenance and Remote Facilities (pump stations, odor control and air release valves).

The Reuse Division has four programs including Administration, Land Management, Spray Irrigation (Wrenn Road) and Pretreatment.

There are approximately 106 employees working at this facility, which is a 24 hour per day/seven day a week operation.

If you have questions or concerns, please feel free to contact us:

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